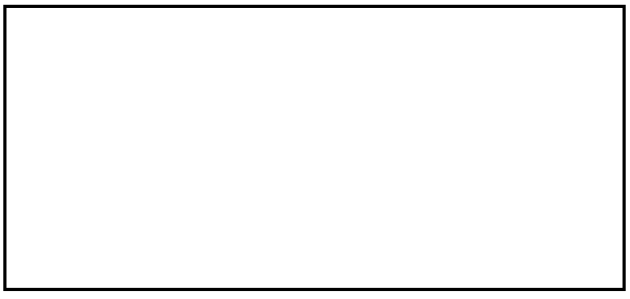
[redacted] and manuscripts drawings

INSTRUCTION MANUAL
FOR
COMPACT VARIABLE
ANAMORPHIC EYEPIECES



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LIST OF ILLUSTRATIONS

Approved For Release 2004/11/30 : CIA-RDP78B04770A000400020010-6

1.0 INTRODUCTION

This manual gives the procedures necessary for successful operation of the STAT [redacted] Compact Variable Anamorphic eyepiece. This unit is designed to replace the conventional eyepieces on the STAT [redacted] Zoom 70 Stereoscope. Figure 3 is a photograph of a Zoom 70 with the two anamorphic eyepieces mounted on it. Before mounting the eyepieces, simple modifications must be made to the stereoscope.

2.0 MICROSCOPE MODIFICATION

2.1 Using the conventional 10X eyepiece in the fixed (non-focusable) side of the stereoscope, focus the microscope on a transparency.

2.2 Remove the focusing sleeve (figure 1) by unscrewing from the stereoscope.

2.3 Replace the focusing sleeve with the #31-26-94-129 collar (furnished with the anamorphic eyepiece set.)

2.4 Place the 10X eyepiece in the collar and, using the same eye used in 2.1, adjust the collar, by rotation, until the image is in focus.

2.5 Tighten collar set screw with a screw driver.

3.0 INSERTING THE ANAMORPHIC EYEPIECES

3.1 Remove the conventional eyepieces from the stereoscope.

3.2 Loosen the clamping ring on the anamorphic eyepiece by rotating it clockwise (when viewed from the top).

3.3 Slip the eyepiece into the stereoscope eyepiece tube, making sure the eyepiece is fully seated. Rotate it so that the aximuth reference window of the eyepiece is toward the outside of the stereoscope.

3.4 Clamp the unit by rotating the clamping ring counter-clockwise. To avoid rotation during clamping, hold the body of the eyepiece with one hand while tightening the clamp ring with the other.

3.5 Repeat for the other side of the stereoscope. Note that when properly installed, the azimuth reference windows will be away from each other.

3.6 Only minor refocusing should now be necessary. A major refocusing requirment indicates that one or both eye-pieces are not properly seated. If so, return to step 3.3. The eyepiece focus match may be trimmed up by using the focusing sleeve on the left eyepiece. (see figure 3).

4.0 USE OF ANAMORPHIC EYEPIECES

4.1 Rotation of Anamorphic Direction.

4.1.1 The azimuth lock ring (figure 2) is loosened by turning counter-clockwise.

4.1.2 With azimuth lock ring loosened, the direction of anamorphism is rotated by grasping the azimuth control ring and rotating it to the desired orientation.

4.1.3 Tighten the azimuth lock ring by rotating it clockwise to provide as much friction as desired. It should be tightened only enough to hold the anamorphism in the desired orientation. Avoid overtightening it.

4.1.4 For future reference, the anamorphic azimuth may be recorded by noting the angular reading in the azimuth reference window.

4.2 Adjustment of Anamorphic Magnification

4.2.1 Rotate the anamorphic adjustment ring (figure 2) counter-clockwise to increase the anamorphic magnification and clockwise to reduce it.

4.2.2 The value of the anamorphic magnification may be determined by reference to the scales at the bottom of anamorphic adjustment ring and the fiducial marker on the anamorphic azimuth adjustment ring.

(Note: Three fiducial marks are located 120° apart around the azimuth reference scale. This assures one fiducial mark is always visible.)

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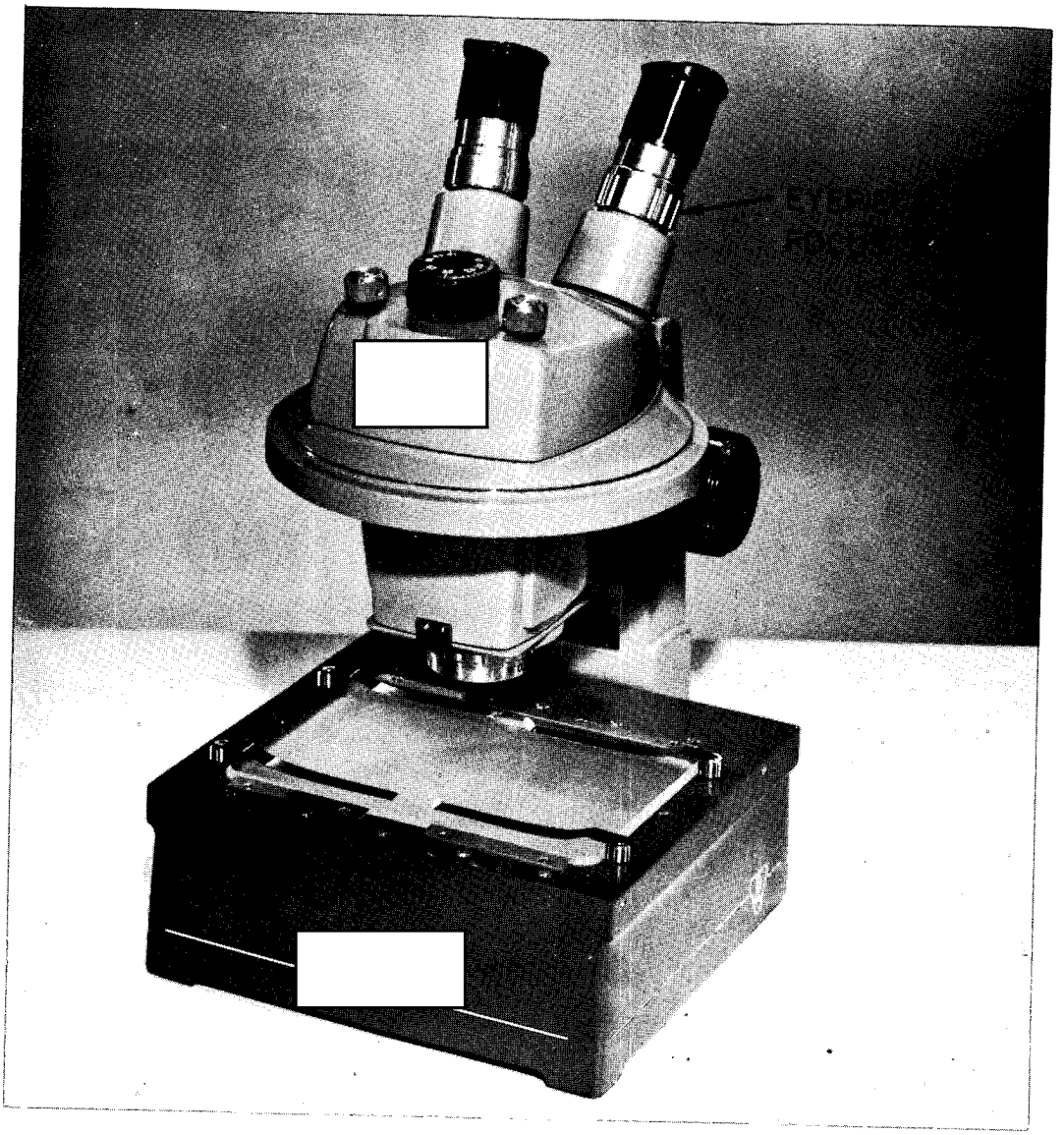
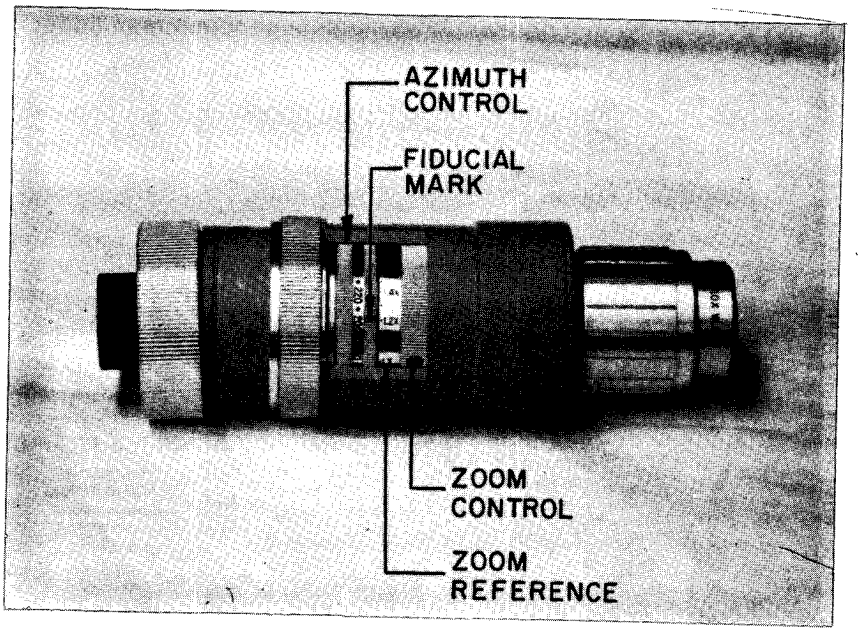


FIGURE 1



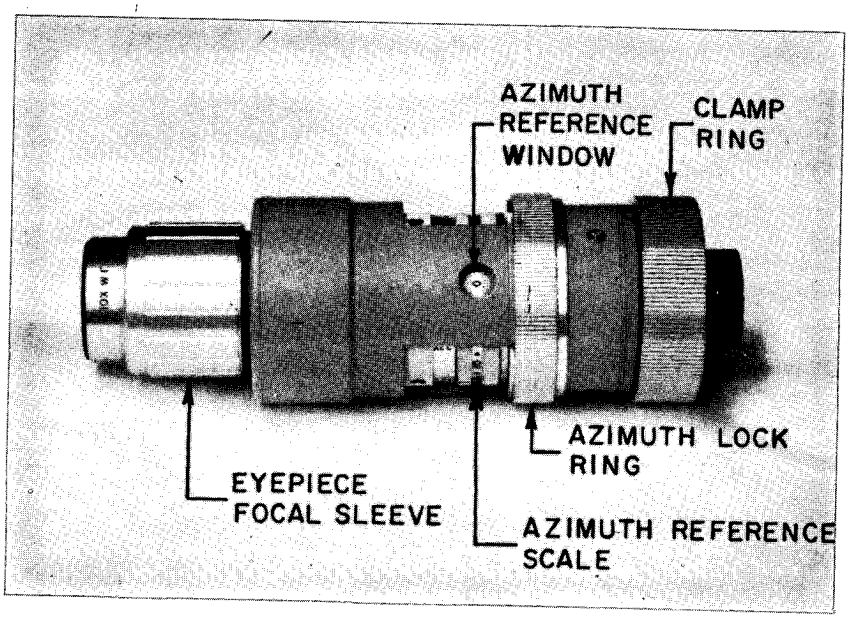


FIGURE 2

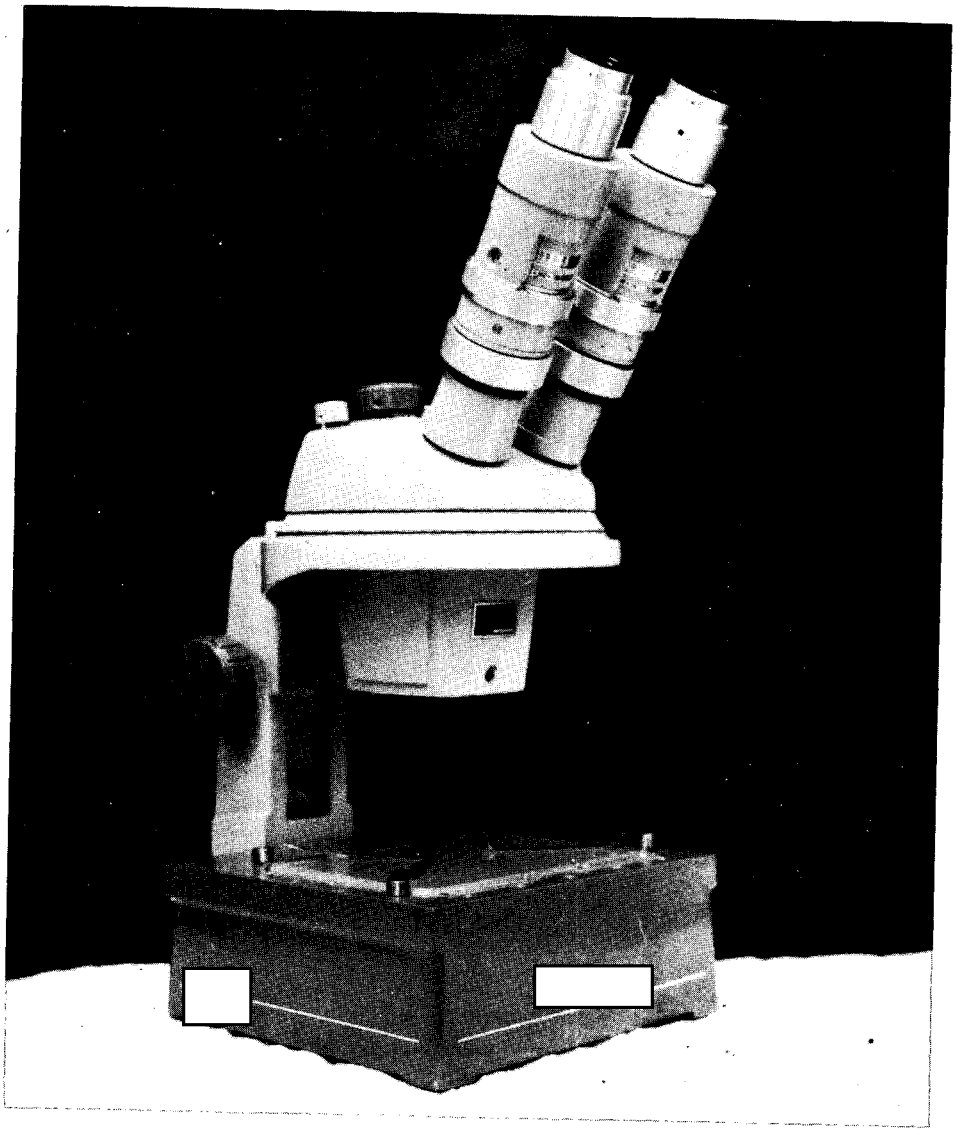


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FIGURE 3

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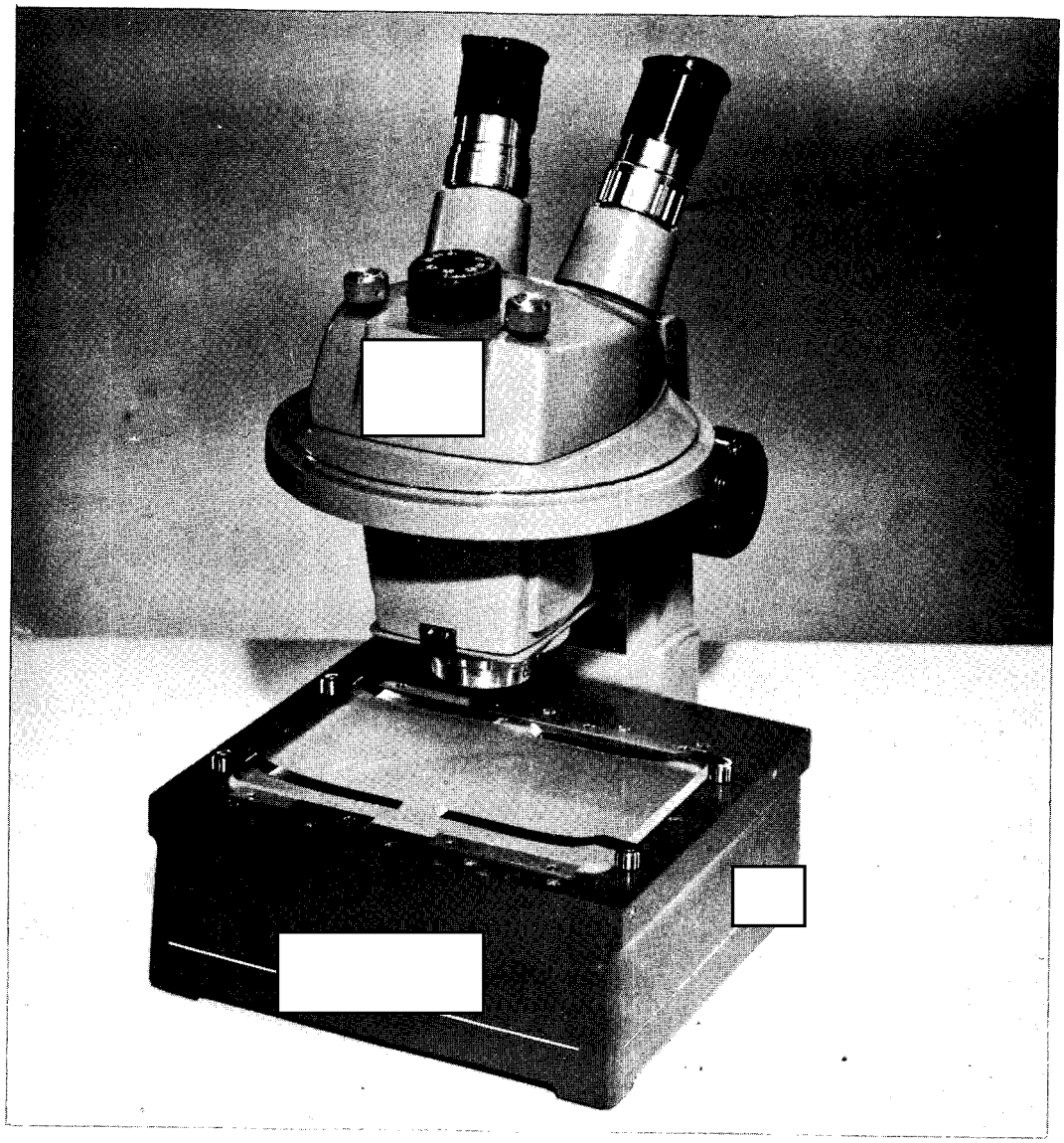

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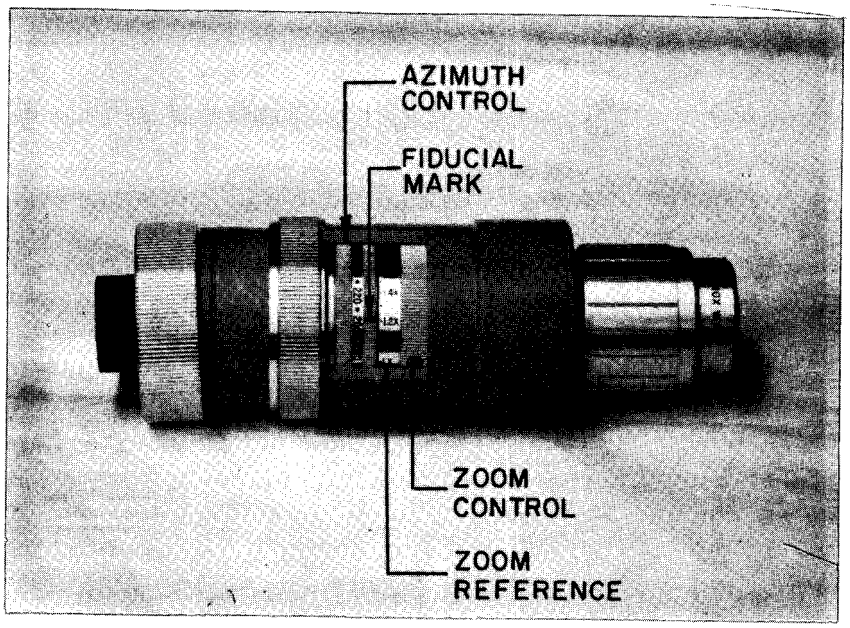
FIGURE 1



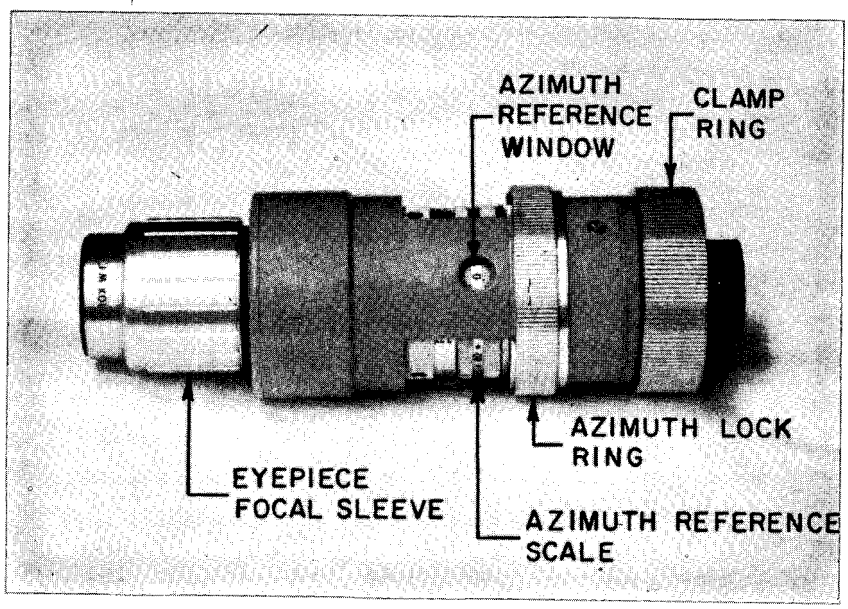


FIGURE 2

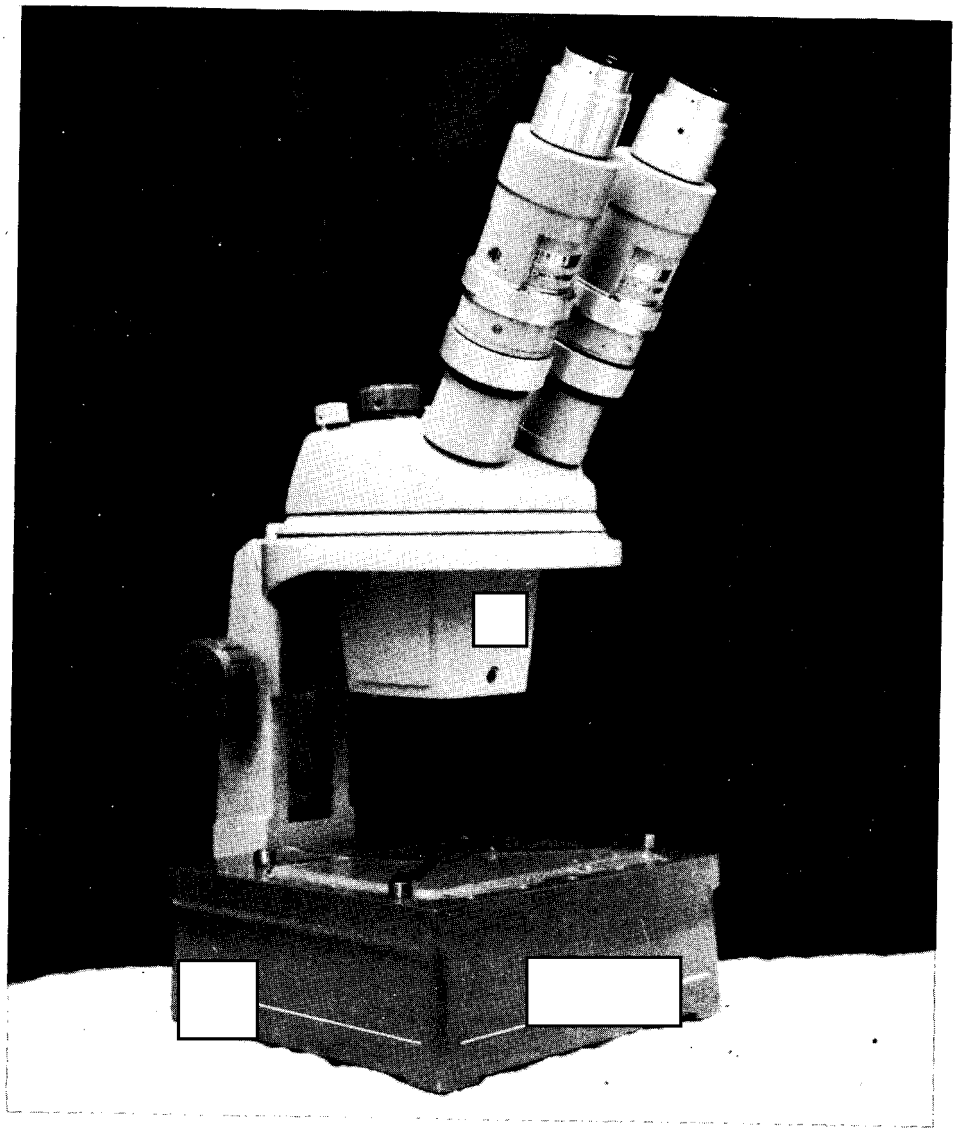


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FIGURE 3